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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
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STIBLEY, MICHAEL R

ART UNIT	PAPER NUMBER
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3688

NOTIFICATION DATE	DELIVERY MODE
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10/17/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTOCommunications@hoffmanwarnick.com

<b>Office Action Summary</b>	<b>Application No.</b> 09/995,239	<b>Applicant(s)</b> CHAN ET AL.	
	<b>Examiner</b> MICHAEL R. STIBLEY	<b>Art Unit</b> 3688	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

- 1 This Office Action is in response to the amendment filed on 06/06/2008.

### **CLAIM STATUS**

2. Claims 1-5 and 7-9 are currently pending in the instant application and have been examined.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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**4. Claims 1, 4-5 and 7-8 are rejected under 35 U.S.C. §103(a) as being unpatentable over Mattern et al (MATTERN)(US 6,763,342 B1) in view of Marion D. Skeen (SKEEN)(US Patent 6,931,392 B1).**

**As per Claim 1:** Mattern discloses a computer system for generating user recommendations for a defined knowledge base, the computer system comprising a reasoning model, the reasoning model comprising:

a. a component for storing, maintaining and representing a decision graph definable by an author (The user can modify the decision paths, column 5, lines 44-46), the decision graph comprising nodes and links between the nodes (a tree structure indicating their relationship, column 5, lines 33-54), the nodes comprising a set of decision nodes, and a set of feedback nodes, each of the nodes in the decision graph comprising rules defined by the author to define links to other nodes in the graph based on a processing of user information including probabilistic reasoning (neural networks; column 13, lines 6-9), and for a decision node, to request and obtain user information (question and reply nodes, column 6, lines 26-35), and for a feedback node, to provide feedback to users (solution nodes, column 6, lines 26-35);

b. a component to traverse the decision graph and fire the rules defined in the decision graph nodes (the reply is evaluated and the knowledge module 208 is accessed to retrieve the next node corresponding to the selected reply, column 12, lines 4-10); and

c. a communication component for communicating the feedback to the users through the webserver to assist the users in making decisions regarding a business transaction (The Web server 202 acts as the presentation layer of the system 200, column 4, lines 56-67).

The Examiner notes that the limitation that the recommendation providing to the user by the feedback nodes are either an interim or final recommendation is inherent. If the recommendation provided in Mattern is subsequently replaced by another recommendation (i.e. updated), then it was an interim recommendation. If it is not replaced, then it was the final recommendation. Furthermore, Mattern explicitly discloses that the system will present to the user “a series of proposed solutions” (column 4, lines 46-50); thus, it is providing interim recommendations.

**Although MATTERN** teaches a system and method to access information on the Internet and on intranets (col 1 lines 25-30) whereas the knowledge serving component may read into memory the entire knowledge module and access the data in memory rather than retrieve information for the knowledge module piece-meal (col 11 lines 45-55) **nevertheless, MATTERN** does not expressly disclose a decision graph comprising multiple entry points, however decision graphs comprising multiple entry points is old and well known in the art.

**HOWEVER, SKEEN** does teach a decision graph with multiple entry points

(See at least SKEEN “...provide multiple entry points...” Col 12 Lines 1-5)

**THEREFORE**, it would have been obvious to a person having ordinary skill in the art at the time of the invention to have combined the teachings of MATTERN with SKEEN so as to provide a computer system for generating user recommendations for a defined knowledgebase utilizing a decision graph comprising multiple entry points **thereby** allowing a query to be optimized allowing a user to obtain a recommendation or solution to user’s query efficiently.

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**As per Claim 4:** Mattern discloses a computer system as in Claim 1 above, and further disclose the nodes contain no information relating to presentation of data to a user (the retrieved information may be assembled with other (page-definition) information stored within the data store 221 to create a Web page, column 11, lines 57-67).

**As per Claim 5:** Mattern discloses a computer system as in Claim 1 above, and further disclose the rules defining links to other nodes in the graph comprise rules accessing and evaluating one of:

- a) personalization choices collected implicitly or explicitly from the user (the reply is evaluated; column 12, lines 4-16);
- b) static data relating to the user;
- c) a dynamically generated user model;
- d) attributes of elements in the knowledge base, and;
- e) author-related goals.

**As per Claim 7:** Mattern discloses a computer system as in Claim 1 above, and further disclose the decision graph comprises nodes potentially chaining the decision graph to other decision systems (links to external documents may be added to an answer node, column 10, lines 40-49).

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**As per Claim 8:** Mattern discloses a computer system as in Claim 1 above, and further disclose the rules defining links between nodes in the decision graph utilize one of: weighting systems; fuzzy logic systems, and probabilistic reasoning (neural networks, column 13, lines 6-9).

**5. Claims 2-3 are rejected under 35 U.S.C. §103(a) as being unpatentable over Mattern et al (MATTERN)(US 6,763,342 B1) in view of Marion D. Skeen (SKEEN)(US Patent 6,931,392 B1) in view of Herz et al (HERZ)(US 2001/0014868).**

**As per Claim 2:** MATTERN and SKEEN disclose a computer system comprising a reasoning model as in claim 1 above and further disclose the decision nodes comprise question nodes (question and reply nodes, column 6, lines 26-35) and the feedback nodes comprise recommendation nodes (solution nodes, column 6, lines 26-35; the solution is presented to the user machine, column 12, lines 38-50), but does not explicitly disclose the feedback nodes comprise promotion nodes. However, Herz discloses a similar computer system for the automatic determination of customized prices and promotions that also automatically constructs product offers tailored to individual shoppers in a way that attempts to maximize the vendor's profits (paragraph 0004). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include promotional nodes in the combination of Mattern and Skeen in order to provide customized prices and promotions which would attempt to maximize the vendor's profits (Herz, paragraph 0004).

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**As per Claim 3:** MATTERN, SKEEN and HERZ disclose a computer system as in Claim 2 above, and Herz further disclose promotional nodes comprising cross-sell and up-sell nodes (selects offers from the offer database that are likely to result in profitable sales, paragraph [0037]; present selected offers to shopper, paragraph [0038]). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made for Mattern to promote cross-sells and up-sells in order to maximize the vendor's profits as discussed in Claim 2 above.

6. **Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mattern et al (6,763,342) in view of Herz et al (US 2001/0014868).**

**As per Claim 9:** Mattern discloses a computer system for generating user recommendations for a defined knowledge base, the computer system comprising a reasoning model, the reasoning model comprising:

- a. a processor, and
- b. a memory, including a component for storing, maintaining and representing a decision graph definable by an author (The user can modify the decision paths, column 5, lines 44-46), the decision graph comprising nodes and links between the nodes (a tree structure indicating their relationship, column 5, lines 33-54), the nodes comprising a set of decision nodes, and a set of feedback nodes, the decision nodes comprising question nodes and the feedback nodes comprising recommendation [and promotion] nodes, each of the nodes in the decision graph comprising rules defined by the author to define links to other nodes in the graph, and for a



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decision node, to request and obtain user information (question and reply nodes, column 6, lines 26-35), and for a feedback node, to provide feedback to users (solution nodes, column 6, lines 26-35),

the rules defining links to other nodes in the decision graph comprising rules accessing and evaluating one of: personalization choices collected implicitly or explicitly from the user (the reply is evaluated, column 12, lines 4-16), static data relating to the user, a dynamically generated user model, attributes of elements in the knowledge base, and author-related goals; and utilizing one or more of: weighting systems, fuzzy logic systems, and probabilistic reasoning (neural networks, Column 13, lines 6-9), and a component to traverse the decision graph and fire the rules defined in the decision graph nodes (the reply is evaluated and the knowledge module 208 is accessed to retrieve the next node corresponding to the selected reply, Column 12, lines 4-10); and a communication component for communicating the feedback to the users through the webserver to assist the users in making decisions regarding a business transaction (The Web server 202 acts as the presentation layer of the system 200, column 4, lines 56-67).

Mattern does not explicitly disclose the feedback nodes comprise promotion nodes. However, Herz discloses a similar system for the automatic determination of customized prices and promotions. The system automatically constructs product offers tailored to individual shoppers in a way that attempts to maximize the vendor's profits (Herz, paragraph [0004]). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include promotional nodes in Mattern in order to provide customized prices and promotions which would attempt to maximize the vendor's profits (Herz, paragraph 0004).

The Examiner notes that the limitation that the recommendation providing to the user by the feedback nodes are either an interim or final recommendation is inherent. If the recommendation provided in Mattern is subsequently replaced by another recommendation (i.e. updated), then it was an interim recommendation. If it is not replaced, then it was the final recommendation. Furthermore, Mattern explicitly discloses that the system will present to the user “a series of proposed solutions” (column 4, lines 46-50); thus, it is providing interim recommendations.

#### ***Response to Arguments***

7. Applicant's arguments filed 6/6/2008 have been fully considered but they are moot in view of amendment, furthermore have been addressed in the above rejections

The Applicant argues in reference to Claims 1 and 9, the Mattern does not disclose the feedback nodes are configured to provide either an interim or final recommendation to the user” (page 10). This has been addressed in the rejections of these claims above. Inherently, every recommendation is either an interim recommendation or a final recommendation, depending on whether or not a subsequent recommendation (update) is received. Furthermore, Mattern explicitly discloses that the system will present to the user “a series of proposed solutions” (column 4, lines 46-50); thus, it is providing interim recommendations.

Applicant's request for allowance and withdraw of the most previous Office Action have been carefully considered. Applicant's arguments are not persuasive and in view of the recent amendments, the current Office Action is made FINAL.

***Conclusion***

8. **THIS ACTION IS MADE FINAL** See MPEP §706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL R. STIBLEY whose telephone number is (571) 270-3612. The examiner can normally be reached on Monday-Friday 9 a.m.-5 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JAMES W. MYHRE can be reached on (571) 272-6722. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MICHAEL R. STIBLEY/  
Examiner, Art Unit 3688  
Tuesday, October 14, 2008

/James W Myhre/  
Supervisory Patent Examiner, Art Unit 3688